



Protect Yourself from Ticks Where You Work

Vector-Borne Disease Section
California Department
of Public Health

Objectives

During this presentation you will learn:

- What are ticks?
- When do ticks bite?
- Why it is important to prevent tick bites?
- Who is at risk for tick bites?
- How to prevent tick bites, and remove a tick

Ticks are small, spider-like creatures that take blood meals from animals.

There are two main families of ticks

Ixodid (“hard”) tick



- Hard outer body
- Attach and feed for days at a time
- Usually found in naturally vegetated areas

Argasid (“soft”) tick



- Soft outer body
- Attach and feed in minutes
- Usually found in rodent nests and remote cabins

Ixodid (“hard”) Tick

The focus of this presentation is the awareness, bite prevention, and tick-borne diseases of the “hard” tick .

Ixodid (“hard”) tick



- Hard outer body
- Attach and feed for days at a time
- Usually found in naturally vegetated areas

Tick Seasons



In California, adult ticks are most common in fall and winter. Small immature, nymphal ticks are common in spring into summer and are the primary vector of Lyme disease to people.

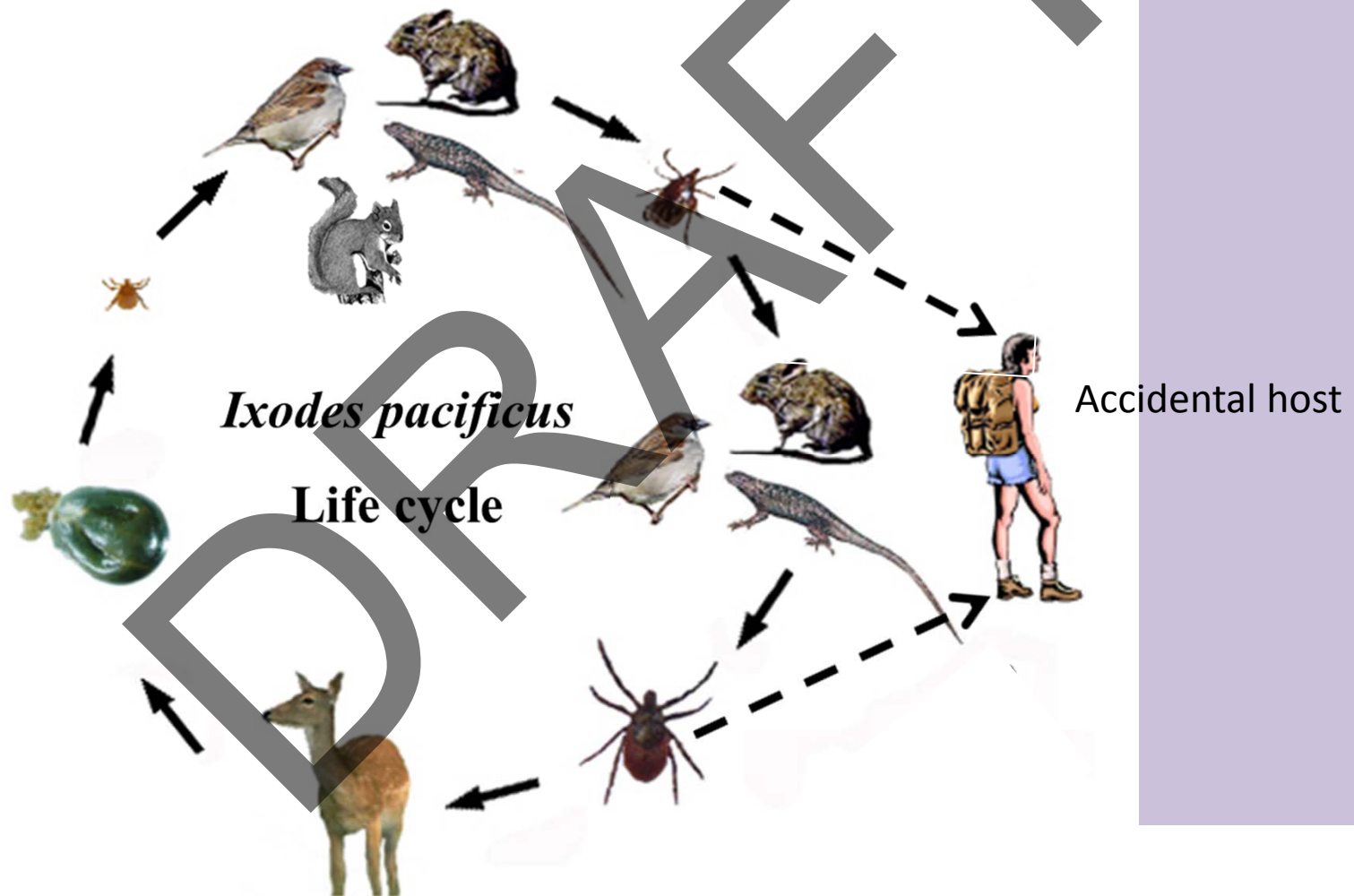




Tick Life Cycle

- Each life stage of the tick attaches to an animal for several days to take one blood meal before maturing to the next stage.
- Larvae and nymphs feed on small rodents, lizards, birds; adults prefer larger animals such as deer.

Tick Life Cycle



Some Ticks in California Can Transmit Disease

Tick-borne diseases in CA from most common to least common:

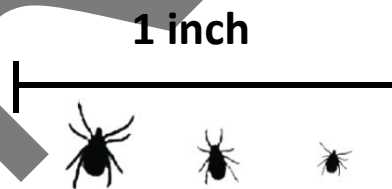
- Lyme disease
- Rocky Mountain Spotted fever
- Anaplasmosis (HGA)
- Tularemia
- Babesiosis



The Ticks that Can Transmit Disease



Female western
black-legged tick
Ixodes pacificus



From left to right: adult
female, adult male, nymph



Female Pacific
coast tick
*Dermacentor
occidentalis*

Workers at Risk for Tick Bites

If your job involves working outdoors where ticks are found (grassy, brushy areas; mixed hardwood forest), you may be at risk for tick bites and the diseases ticks carry.



Examples of At-Risk Occupations and Job Duties

- Brush clearing
- Construction
- Farming
- Forestry
- Irrigation worker
- Land surveying



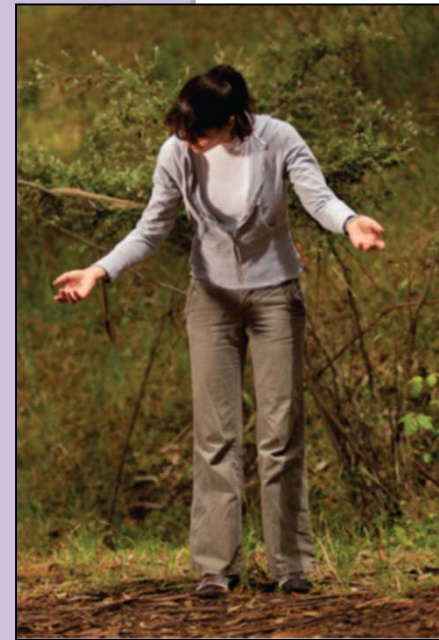
- Land surveying
- Park or wildlife management
- Utility line work
- Trail construction or management

Protecting Yourself from Tick Bites on the Job

- Before you leave for work
- During work
- After work

Wear the Right Gear

- Light colored protective clothing
- Long sleeves and pants
- Shirt tucked in



Use EPA-Registered Tick Repellents

On exposed skin:

- Repellent with DEET (>20%)
- Repellent with Picaridin
- Follow label directions



Use EPA-Registered Tick Repellents



On clothing:

- Treat clothing with permethrin
- OR spray with DEET
- Follow label directions

While You are in Tick Habitat:

Check Yourself and Others Often

- Ticks are usually visible crawling up clothing
- If you find a tick biting you, remove it promptly.
 - It takes several hours for an attached tick to infect a person with a disease-causing organism.

Remember Timing is Everything!

After Returning from Tick Habitat

- Wash clothing and shower soon after returning from a tick infested area
- Check yourself for ticks for 2 - 3 days after returning from tick habitat
 - Be sure to check well at the hairline, behind the knees, and in the groin area
- If you find a tick biting you, remove it promptly.
 - It takes hours for an attached tick to infect a person with a disease-causing organism.

What Happens When a Tick Bites?

- Once a tick bites or “attaches”, it does not back out and bite again. You must remove it.
 - Nymphal ticks feed for 3 – 4 days
 - Adult ticks feed for 5 – 7 days

How to Remove a Tick

The best method to remove a tick is to manually pull it out using tweezers.

1. Cleanse the area around the tick with soap and water or antiseptic.
2. Grasp the tick's mouthparts with the tweezers close to the skin.
3. Using a gentle, straight-up motion, pull the tick slowly upwards. Do not twist or jerk the tick while pulling.
4. Apply an antiseptic to the bite site and wash your hands with soap and water.



More About Tick Removal

Occasionally during removal, the embedded mouthparts may break off and stay in the skin.

- If this happens, remove the mouth parts with tweezers as you would a splinter.
- If you cannot remove the mouthparts, clean the wound, apply antibiotic ointment
- See your health care provider if the bite site becomes infected.

After Removing the Tick

- Dispose of the tick in the trash, or save for identification by the local vector control agency by placing it in alcohol.
- Documentation of a tick bite while on the job should be discussed with your safety officer. The safety officer may want to note the date of the tick bite and the work location at the time of the bite in case symptoms of a tick-borne illness begin within one month after the bite.
- If you develop symptoms of a tick-borne disease, notify your safety officer and seek prompt medical attention. Tell your health care provider that you work outdoors in an area where ticks may be present.

What to Look for After a Tick Bite

Painful redness that does not expand and occurs less than 24 hours after being bitten is likely to be a local allergic reaction to the tick's saliva.



Most tick related illnesses have flu-like symptoms that develop two days to several weeks after being bitten by a tick. Tick-borne diseases can be serious if not treated.

For More Information About Ticks and Tick-borne Diseases

- Visit the California Department of Public Health Website:
<http://www.cdph.ca.gov/HealthInfo/discond/Pages/TickBorneDiseases.aspx>
- To see the CDPH Workplace Tick-bite Prevention poster click here:
<http://www.cdph.ca.gov/HealthInfo/discond/Documents/OccHealthTickbitePreventionPoster.pdf>
- For information on repellents: <http://npic.orst.edu/> or
http://www.cdc.gov/ncidod/dvbid/westnile/qa/insect_repellent.htm
- For information on workplace hazards call the CDPH Occupational Health Branch Workplace Hazard Helpline at: (866) 282-5516.